



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,323	03/29/2004	Ichiro Mitsuyoshi	P/1250-271	5119
2352	7590	06/29/2006	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			HERRERA, JENNIFER	
			ART UNIT	PAPER NUMBER
			3652	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/813,323	MITSUYOSHI, ICHIRO
	<b>Examiner</b>	<b>Art Unit</b>
	Jennifer P. Herrera	3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 3/29/2004.  
 2a) This action is **FINAL**.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-6 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-6 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 29 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6/14/2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Information Disclosure Statement*

1. References listed below were not considered since the translated abstracts were not submitted after being disclosed;
  - a. Document Number: 08-335622, and
  - b. Document Number: 07-273165.

### *Drawings*

2. The drawings are objected to because reference numbers "11" and "112" were not described in the specification.
3. As understood by the examiner reference numbers "128b, 128c, 128d, and 128e" are the movable parts to each respective shelf, except there is no explanation in the specification.
4. In Figure 3, reference numbers "137" and "131", as understood by the examiner, have been transposed.
5. In Figure 7, reference number "188c" is used for the movable part for two different shelves "181c" and "181e". As understood by the examiner, "188c" used with shelf "181e" should be "188e."

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

6. The disclosure is objected to because of the following informalities:
  - a. on page 3, referencing to Figure 11 when reference number "938a" is not shown but shown in Figure 10,

Art Unit: 3652

- b. on pages 7–8, “or a surface as seen in the direction of an arrow AR5” of Figure 2 is questioned by the examiner to determine the surface to use, and
- c. reference “210” does not exist in the drawings, the examiner understands the second receiving section being represented “120”.

Appropriate correction is required.

#### *Claim Objections*

- 7. Claim 1–6 are objected to because of the following informalities:
  - a. regarding claim 1:
    - i. in line 6, “a substrate” as understood by the examiner is the same substrate disclosed in the previous line, and
    - ii. in line 12, “the vertical direction” has not been disclosed,
  - b. regarding claim 2–5, “second shelves” as understood by the Examiner are referring to the “second shelf line”, and
  - c. regarding claim 6, line 4 “a substrate” as understood by the examiner is the same substrate disclosed in the previous line.

Appropriate correction is required.

#### *Claim Rejections – 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3652

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As disclosed in line 16, "one of a target" is unclear to what the applicant would like to disclose. It will be necessary for the applicant to clearly explain the phrase.

*Claim Rejections – 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Perlov et al.

(U.S. 6,283,692 B1)(“Perlov”). Perlov discloses:

- a. a substrate processing unit 10 in column 2, lines 57–61,
- b. a substrate transfer unit 24 in column 2, line 67 and column 3, lines 1–6
- c. a mounting part 58 in column 3, lines 49–53,
- d. a first and second shelf line in column 4, lines 16–23,
- e. a displacing element 72 in column 4, lines 43–48, and

f. a transport element 76 in column 4, lines 32–39.

***Claim Rejections – 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2,3,6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlov in view of Mages et al. (U.S. 6,736,582 B1)(“Mages”).

a. Regarding claim 2, Perlov does not disclose the displacing element partially connected to the second shelf line. Mages discloses the connection 17 and 18 of the displacement element 4 and second shelf line in column 4, lines 61–67 and column 5, lines 1–5. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to add Mages connection to Perlov’s device to permit the shelf line to move independently without the restriction of having a large, rigid connection.

b. Regarding claim 3, Perlov does not disclose independent displacing mechanisms for each shelf in the shelf line. Mages discloses an independent displacing mechanism in column 4, lines 61–67 and column 5, lines 1–5 and

lines 16–28. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to add Mages displacing mechanism to Perlov's plurality of shelves to allow independent movement between shelves. The ability to adjust vertical displacement between shelves depending on the substrate's size and shape negates any limitation of the device.

c. Regarding claim 6, Perlov discloses as stated above. Perlov does not disclose the displacement of one plurality of shelves. Mages discloses the displacement of the on said plurality of shelves in column 4, lines 61–67 and column 5, lines 1–5 and lines 16–28. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to add Mages displacing shelves to Perlov's device to maximize the transportation of the substrate while minimizing the restriction of rigid parts.

11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlov in view of Mages as applied to claims 1–3 above, and further in view of Yamada et al. (U.S. Publication 2002/0141850 A1)(“Yamada”).

a. Regarding claim 4, Perlov discloses the ability of having different amount of shelves as well as shelf lines in column 4, lines 16–23. Perlov and Mages do not disclose displacement capable to range within the height of the first shelf line. Yamada discloses the displacement of the second shelf line within the height of

the first shelf line in paragraph 0017 and in lines 1–8 in paragraph 0060.

Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to add Yamada's displacement movement to Perlov's and Mages' device to provide a functionality of the device to allow a greater range of movement of the second shelf line while keeping the space provided in the clean room in mind.

b. Regarding claim 5, Perlov and Mages do not disclose displacement corresponding to the second predetermined interval. Yamada discloses the displacement corresponding to the second predetermined interval in paragraph 0017 and in lines 1–8 in paragraph 0060. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to add Yamada's displacement to Perlov's and Mages' device to insure the use of the device for the infinite number of sizes and shapes of substrates.

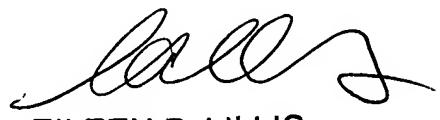
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer P. Herrera whose telephone number is (571) 272-6269. The examiner can normally be reached on 0830-1700 hrs Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JPH 6/22/06



EILEEN D. LILLIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600